#### **MEMORANDUM**

DATE: December 8, 2000

TO: Division of Shellfish Sanitation Staff

THROUGH: Robert W. Hicks, Acting Director

Office of Water Programs

FROM: Robert E. Croonenberghs, Ph.D., Director

Division of Shellfish Sanitation

SUBJECT: Seawater Monitoring Program - Procedure - Seawater Sampling Data Entry

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# 1. PURPOSE

The purpose of this memorandum is to establish a procedure for the entry of seawater sampling data into the database.

#### 2. SCOPE

The procedure is applicable to field office personnel who are assigned the task of entering the seawater sampling data.

# 3. <u>DEFINITIONS</u>

- 3.1 <u>Growing Area Number</u>: The number assigned by the classification chief to that portion of the sanitary survey area encompassing the subaqueous bottom of the tidal waters.
- 3.2 <u>Station Number</u>: The number assigned by the classification chief to the specific seawater sampling point in the growing area.
- 3.3 <u>Rainfall</u>: Amount of rainfall measured at selected weather stations and given as inches per 24 hour period.
- 3.4 <u>Ebb</u>: The tide direction which represents the period of a tide between high water and the succeeding low water.
- 3.5 <u>Flood</u>: The tide direction which represents the period of a tide between low water and the succeeding high water.
- 3.6 <u>High Slack</u>: The period of a tide in which there is no tide direction and the tidal stage is at or near its highest point for a particular tidal cycle.

- 3.7 <u>Low Slack</u>: The period of a tide in which there is no tidal direction and the tidal stage is at or near its lowest point for a particular tidal cycle.
- 3.8 <u>Temperature</u>: The degree of hotness or coldness, measured in degrees Centigrade, at specific predetermined seawater sample stations.
- 3.9 <u>Salinity</u>: The measure of the amount of salt, measured in parts per thousand, at specific seawater sample stations.
- 3.10 <u>Average Wind Direction</u>: The wind direction which typifies the wind direction conditions during the time in which the seawater samples in a specific growing area are taken.
- 3.11 <u>Maximum and Minimum Wind Velocity</u>: The highest and lowest rate of speed of wind during the time seawater samples are taken in a specific growing area. This speed shall be given in miles per hour.
- 3.12 <u>Secchi Depth</u>: The depth of water to which a standard Secchi disk is lowered and cannot be seen by the eye.

### 4. RESPONSIBILITIES

- 4.1 Field office personnel will enter the bacteriological and hydrographic data into the division's computer.
- 4.2 All bacteriological and hydrographic data entry is to be checked for accuracy by another person who will initial the data entry screen print-outs which will then be attached to the original seawater field sheets and mailed to the central office.

#### 5. BACTERIOLOGICAL DATA ENTRY

- 5.1 Growing Area Number: Use this to bring up the desired entry screen.
- 5.2 <u>Sample Date</u>: The month, day, and year the seawater samples were collected.
- 5.3 Fecal Coliform Data: The most probable number of fecal coliform organisms isolated from each sample taken at a specified sampling station. When the value of the MPN is <3.0 the number 2.9 shall be entered into the computer.

  When the value if the MPN is >1100 the number 1200 shall be entered into the computer.
- 5.4 Station Number: The routine station numbers are on the data entry screen.

## 6. HYDROGRAPHIC DATA ENTRY

- 6.1 Growing Area Number: Use this to bring up desired entry screen.
- 6.2 <u>Station Number</u>: Enter the stations from the field sheet at which time, water and

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- 6.3 <u>Tide Direction</u>: Enter the direction of the tides at the first station sampled (earliest time) and the last station sampled within a specific growing area. The exact time is recorded on the field sheet.
- 6.4 <u>Hours of Tide</u>: Enter the number of hours, in hours and tenths, into the present tidal stage at the first station sampled (latest time) within a specific growing area. Use the recorded time on the field sheet.
- 6.5 <u>Tide Code</u>: Enter the code, expressed as a single number from 1 through 8, as defined on the data entry screen. The ranges as hours into the given time are given for each code. The code coincides with tide direction and hours previously recorded.
- 6.6 <u>Temperature</u>: Enter the temperature of the seawater as defined in 3.8 of this memo. The temperature is recorded for the predetermined stations on the field sheets used for routine sampling runs.
- 6.7 <u>Salinity</u>: Enter the salinity of the seawater as defined in 3.9 of this memo. The salinity is recorded for the predetermined stations on the field sheets used for routine sampling runs.
- 6.8 <u>Average Wind Direction</u>: Enter the average wind direction as defined in 3.10 of this memo. Variable winds may be indicated by AV.≅
- 6.9 <u>Maximum and Minimum Velocity</u>: Enter the maximum and minimum wind velocity as defined in 3.11 of this memo. Light winds may be indicated by "L."
- 6.10 <u>Secchi Depth</u>: Enter the Secchi depth data as defined in Section 3.12 of this memo at the predetermined temperature and salinity sample stations. Click on ATo Bottom≅ to indicate turbidity readings reached the bottom.
- 6.11 <u>Light Conditions</u>: Enter light conditions as S for sunny, PC for partly cloudy or O for overcast.

## 7. RAINFALL DATA ENTRY

- 7.1 Enter in the space "During and Previous 24 Hours" the rainfall data obtained for the date previous to the date of sampling.
- 7.2 Enter the location of weather station.
- 7.3 Enter under "Previous Days≅ (Excluding Previous 24 Hours) the rainfall data for the previous 7 days. The dates will come up automatically.
- 7.4 It is not necessary to enter the total rainfall since it will be automatically calculated.